

Forestry

The natural conditions for a satisfactory system of forestry 313 ● are given neither on the Black Earth nor on the steppe proper, where the low rainfall practically excludes silviculture in place. The situation in Polesya and the mountains is entirely different, but forest areas there are too limited to play any part of importance in the general economy of the country. Exploitation in former times, above all the export of wood and potash by the Union of Poland and Lithuania, completely destroyed forest stocks. It is only since the end of the nineteenth century that there has been any forest conservation in Russia. Since 1880, Dnipro Ukraine alone has lost out of 4.2 million ha of forests (4.9 million ha of forest land), more than 40 %, so that in 1932 it had only 2.5 million ha of forests (3.5 million ha of forest land).

Reforestation of forest land would produce 650000 ha of forests, which could be increased to 1.5 million ha by including land that is not particularly valuable for agriculture. Such measures which, in the 35 years before the First World War had produced in Germany an increase of 2.5 % and 13 % in France in the course of 64 years, were not seriously entertained in post-war years either by USSR or Poland. Areas that had been stripped of trees (22 % and 12 % respectively) were not forested.

Forests in the Carpathians amount to 48 % of the stocks in the entire Ukraine, there being 1.08 ha per head of the population; the corresponding figures for the Caucasus, especially in the north are 58 % and 1.6 ha, for Polesya 40 %, and 0.5 ha. The other areas of the northern zone have fewer forests, the figures being 20 % and 0.23 ha for Podlakhia and Chernyhiw and 19 % and 0.18 ha for Galicia and Volynia in the central zone. The center of Dnipro-Ukraine has little forest land, the figures

- 313 being 13 % and 0.14 ha for the Right Bank Region and 7 % or 0.12 ha for the Left Bank Region. The southern zone has still less (0.08 ha per head) and there is practically none at all in the southern steppe proper.

[311] Thanks to its enormous area Ukraine with its 11 million ha of forest land comes fifth in Europe, but there is only 12 % of forest land in the entire country, and scarcely 0.2 ha per head of the population, while 0.3 ha is regarded as the minimum. The figures for actual forest stock will be still less, as only three quarters of the nominal forest land in Soviet Ukraine (3.1 million out of 4.3 million ha) represent actual forests. Thus the ratio of forest to the entire area of Ukraine would be 9 %. Forestry in those parts of Ukraine that used to belong to Austria-Hungary was on a higher level than in the other provinces; after the war it was highest in Carpatho-Ukraine.

- 313 The annual increment in timber in Dniro-Ukraine amounts to 2 cubic meters per ha, in Volynia, Podlakhia and Polesya to 1.9 cubic metres, in Galicia and Carpatho-Ukraine to 3.3 cubic metres, so that the average figure for the entire country is 2.3 cubic metres. This average for Ukraine is low compared with the figure of 5 cubic meters for the state forests of Germany and 4.4 for the communal forests.

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439 Reckoned per head of the population there is in Ukraine a timber increment of only 0.4 cubic meters, which is far lower than in most of the forest countries in Europe. As a result, wood has to be imported for mining and industrial areas.

Wood imports amounted to 1.8 million t in Dniro-Ukraine in 1913, and the average figures for 1928/29 and 1933/34 are 3.7 and 4 million t respectively. The average imports to Northern Caucasus for the last year amounted to 1.2 million t, while the figure for the Crimea is 250 000 and for the whole of Eastern Ukraine 5.5 million t. The demand for timber is greatest in the Donets Basin, the Dniro Bend and also in Kharkiv and Odessa.

Imports consist chiefly of soft woods; a certain amount of valuable oak is even exported from areas that are otherwise dependent on imports. In those parts of Ukraine that belong to Soviet Russia there is 0.16 ha forest per head of the population,

3: Mirchuk S-4 (no date) 1949 RD1 Ukraine RD1

the figure for the Roumanian provinces being 0.25, for the Polish 313 ●
0.36, and 1.05 for the Hungarian provinces. 439

Imports of timber came mostly by water and rail from White Ruthenia and above all from the forests in the middle reaches of the Volga. The wood that was drifted down the Volga was loaded on railway trucks in Stalingrad and transported to its destination.

Hardwoods predominate in the forest stock of Ukraine (59 %). 313
Oak represents 27 %, beech 9 % of the entire forests. Of the 41 % 137
softwoods there is 27 % pine. Pine and oak are the main species in Dnipro-Ukraine, while in Galicia spruce predominates and beech in Carpatho-Ukraine. In the Caucasus species of oak and beech occur most frequently.

From Underground to Resistance. 131

historic Ukrainian lands of Volhynia, Kiev, and Chernigov. The northern part, appropriately known as Polesia, or the "forest land," is of little value for crop growing but contains the only timber industry of significance in the Ukraine. 133 [313] ●

As the German armies rolled into the Ukraine in 1941, they tended to advance along the main lines of communication, avoiding the difficult, swampy regions. For weeks, or in some cases even months, the less accessible areas were not brought under German control. This circumstance made possible the development of partisan bands which carried on resistance to the occupation authority. 727 725 668*

Although, since 1945, Soviet writers have maintained that the plans for guerrilla warfare against the conqueror had been secretly prepared before the outbreak of hostilities, they assert that these plans were known only to the top level of Communist Party officials. It is fairly certain that the order to develop a partisan movement came as a surprise even to most devoted Communists.² In July, 1941, after the decision to form partisan detachments was announced, preparations were pushed forward at a rapid rate by the local authorities. The rapidity of the German advance to the line of the Dnieper, however, rendered largely ineffective systematic attempts to form a partisan movement in the Ukraine west of that river. Even east of the Dnieper the panic produced by the seemingly irresistible German drive played havoc with the organization of guerrilla warfare. Many of the secretly selected leaders were swept along, willingly or unwillingly, in the retreat of the Red Army, while others were discovered and executed by the Germans. In a few places, however, small groups made good their escape to forest or swamp hide-outs. In the southern Ukraine one such group of about five hundred men, trained and directed by the Red Army, but largely composed of local Communist and NKVD officials, established a center of opposition in the swamps formed by the Dnieper south of Nikopol' (Nikopil').³ This group was destroyed by the German forces in 725 665 669

* Oleksii Fedorov, *Podpol'nyi obkom deistvuet* (The Underground Oblast Committee in Action), literary editor Evg. Bosniatskii (Moscow: Voennoe Izdatel'stvo Ministerstva Vooruzhennykh Sil Soiuza SSR, 1950), pp. 12-14.

² Report of Feldpolizeidirektor at 444. Sicherungsddivision, November 5, 1941, NOKW 1519 (hereafter referred to as NOKW 1519).

³ [of the Reichskommissariat Ukraine -- Analyst]

The
Ukraine]

FORESTRY; FISHERIES

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planting, principally of sand-willows and pines, the ¹³⁷ main object being to arrest the movement of drift-sand.

The principal Ukraine timber trees are oak, maple, elm, ash, willow, aspen, lime, and wych-elm.

The art of forestry would appear to be almost entirely ^{3/3} neglected. Systematic replanting of timber is hardly known, and wholesale destruction of woods on the river banks has had disastrous results in the splitting up of the channels. The lime is frequently denuded of its bark to make bast, the tree subsequently perishing as it stands.

(3) FISHERIES

The fisheries of the Ukraine can be divided into ²²⁸ three classes: those of the upper reaches of the rivers, those of the lower reaches and the lagoons at the mouths, and those of the Black Sea and the Azov Sea.

In the upper reaches of the principal rivers, fishing can scarcely be called an industry, being carried on by individuals mainly for their personal needs; the stock of fish is everywhere decreasing at a regrettable rate, and much alarm is caused by this depletion.

The fisheries of the lower reaches of the Dnieper, ²²⁸ Dniester, and Southern Bug have considerable value. ¹³⁶ The principal fish taken are sturgeon, of which there are several varieties, carp, bream, fresh-water herring, and sander. The fisheries are the property of the riparian owners, who let them to syndicates. The State owns a considerable stretch on the Bug from Nikolaev to Novaya Odessa. The fishing seasons are from February to April and in the autumn, when the fish revisit the rivers to spawn. At this time they are taken for the roe, from which caviare of various qualities is made.

In the Black Sea the principal fish are mackerel, anchovy, and flounder. The fishing here is also carried on by syndicates, and is done close to shore with rather primitive appliances. The bulk of the fish is preserved

there are several large factories which specialize in every kind of machine necessary for the sugar industry. 392 433

Several other industries, while of small account in comparison with those described above, deserve mention.

Manufacturing enterprises dependent upon animal products divide themselves principally into tanneries and woollen factories. The centres of the leather industry lie in the northern portion of the country, especially in the Governments of Kharkov, Poltava, Chernigov, and Podolia. This industry accounts for 4.5 per cent. of the total manufacturing output of the Ukraine. The woollen industry is centred in Kharkov, which has two large cloth mills, and in the town of Klintsi in the Government of Chernigov, where not only cloth but knitted goods, yarns, rugs, shawls, and other woollen goods are turned out from eight considerable factories. The production of woollen goods represents 3.5 per cent. of the total Ukraine output of manufactures. 282 288 433

The timber-working industry is chiefly found in the riparian towns, especially on the Dnieper. Yekaterinoslav takes first place, and Kremenchug, Alexandrovsk and Kherson also have saw-mills. Much of the timber shipped abroad is in an unworked state, and manufactures of the better sort are poorly represented. The industry accounts for only 4 per cent. of the value of the Ukraine manufactures. 313 433

The chemical industry is of minor importance. It is concerned chiefly with the products and by-products of coal gas at Odessa and Kharkov, but there is also a soda factory in the Bakhmut district and there are a number of match-factories in the Novozibkovsk district of Chernigov. The products of the industry represent only 3.5 per cent. of the value of the manufactures of the Ukraine. None of the more advanced branches of the industry is established in the country. 382 433

The industries enumerated account for 90-95 per cent. of the manufactures of the country. The remainder, grouped under the headings of paper, linen, cotton, and fibre industries, are of negligible account. 753

Food Industries

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127 The damage suffered by the Soviet food industry during the German
25 occupation - not counting the destruction of livestock and crops - has
M been estimated at 17,000 million roubles. Restoration work was begun
727 while the war was still on, and by May 1947, 3,200 food factories had
25 been rebuilt. A fairly large proportion of these restored factories
433 must have been in the Ukraine, where, according to the Soviet Monitor¹
6, 1946. The rehabilitated factories had exceeded their 11 months'
food output programme by production valued at 12 million roubles
(146 million roubles over the corresponding period of 1945).

Sugar

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257 Before the war the output of sugar in the Ukraine was as follows.

TABLE XX

Pre-War Sugar Production: Ukraine and U.S.S.R.
(metric tons)

Year	Soviet Union total	Ukrainian S.S.R.
1928	1,221,200	1,086,400
1932	826,800	559,700
1937	2,377,500	1,789,800

Sources: Socialist Construction, Moscow, 1939; and Statistical Yearbooks of the League of Nations, Geneva, 1936 and 1939.

The Five-Year Plan establishes that in 1946-50 sugar refineries in the Ukraine shall be restored or built capable of handling upwards of 67,000 tons of sugar beet per day. By 1950, according to plan, the output of granulated sugar in the Ukraine will reach 1,637,000 tons, (in the entire Soviet Union, 2.4 million tons).

Forestry

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[311] In January 1935 the forest area of the Ukrainian S.S.R. was
313 3,845,000 hectares - about 0.5 per cent. of the forest area of the
entire U.S.S.R.² The number of sawing frames in the Republic was
703 out of the Soviet Union total of 6,500 (total capacity, 18.4
million cubic metres).³ Considering the relatively small forest

1 November 11, 1946

2 Socialist Construction, Moscow, 1936.

3 Planned Economy, Moscow, 1940, II.

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313 area of this Republic, the high proportion of sawing frames reveals the advanced development of its timber industry.

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313 727 During the war Soviet timber enterprises, along with other industries, suffered considerably. Much has been done to repair the damage, but rehabilitation work has been seriously hampered by shortages of wagon transport and of seasonal labour. In January this year a Pravda leading article announced that the preparation of timber in the U.S.S.R. was nine million cubic metres short of the plan, and that the shipment of prepared timber was "in an even worse condition," particularly in the Ukrainian and Byelorussian Republics. Part of the difficulty at least was due to breakdowns in tractors, but chiefly to labour shortage and low labour productivity. Here again, as in all branches of industry and agriculture, the exceedingly low food ration scales must be taken into account.

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185 313 The Five-Year Plan includes the following provisions for Ukrainian timber developments:

"To reduce the haulage of lumber to the Ukrainian S.S.R., the general plan for the production of undressed lumber in the Ukraine in the years 1946-50 shall be set at 47,600,000 cubic metres, with provision for an increase of felling in the western regions of the Ukraine and a restriction of felling in its eastern regions. Reforestation shall be carried on extensively, timber being planted in the period 1946-50 on an area of 252,000 hectares and measures taken to replenish the thinned forests and to introduce fast-growing varieties of timber."

Paper Production

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287 In 1937 the Ukraine produced 28,400 tons of paper, as compared with 22,600 tons in 1932. This output represented, in 1937, 3.42 per cent. and, in 1932, 4.8 per cent. of the Soviet Union total paper production.¹

In 1946 the reviving paper industry of the Ukraine turned out about 9,500 tons of paper and cardboard, exceeding its production programme by 10 per cent. This year the output of paper and cardboard is expected to be more than double that of 1945.

The first section of a mill producing paper bags has been launched in the Dragobych Region, and another paper mill is being built in the same region. Two cardboard factories are being built, one in Lvov and one in Rakhov (Transcarpathian Region).²

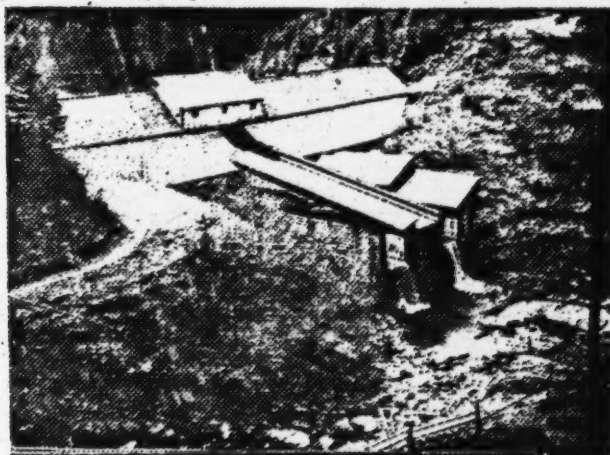
1 Socialist Construction, Moscow, 1939.

2 Soviet Monitor, London, January 10, 1947.

CZECHOSLOVAKIA

They are a mountain people who cling to the place where they were born. This applies even to those who, through force of circumstances, had to leave their native village to earn their living elsewhere. Some have found occupation in the fertile South; but when they have saved some money they want to return home and are prepared to pay a higher price for a few poor fields, although in the valleys of the South they could buy much better land for the same amount. Hundreds of thousands have emigrated to America, where about as many Ruthenians can be found as have remained in the homeland under the Carpathians. Yet many long to come back home to find their last resting place in the native soil.

The peculiar beauty of this forgotten country has a strong grip on her simple sons. The Ruthenian Carpathians are not so high as the Slovak peaks, but the vast stretches of dense forest, which cover almost half of Ruthenia, give the country a more primeval appearance. Some of the woods and slopes are delightful idylls, where the fresh and fragrant air is full of hum and rustle and warble. But in many parts, unchartered and untouched by human hand, the forest is sombre. Trees felled by storm or gale lie dead where they have fallen, and there is a smell of rotting wood in this lonely wilderness. Wild boar, wolf, lynx and bear have their hunting ground here, while above the tops of the mighty pines, firs, oaks and maples, circle the eagle and the hawk. Other parts of the forest are enlivened by the rhythmical sound of the axe cutting down trees to be floated down the rushing mountain streams. A large proportion of the hardy Ruthenians earn their living in this way. But above this expanse of deep forest are the sunlit pastures and upland meadows sprinkled with gentian, buttercups, pansies, chrysanthemums and geraniums. Sheep and cattle graze here during the summer months; Ruthenia is also a country of shepherds, who blow their huge horns at night to gather the scattered herds.



Wooden dam
in Ruthenia

54 460 UKRAINIAN SOVIET SOCIALIST REPUBLIC

438* Khotin (Rumanian *Hotin*) lies in an orchard and vineyard area on
U the Dniester River. There is a noted leather industry.
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Stanislav Oblast

Area, 5,400, population, 1,300,000

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133* Stanislav Oblast is drained by the upper Dniester and its right affluents
U descending from the Carpathian Mountains. It has important petro-
133 leum, salt, natural-gas, and potash deposits in the areas of Dolina and
Bolekhov, with petroleum fields extending along the foothills in a south-
easterly direction to Kosmach, southwest of Kolomyia. The principal
oil towns are Bolekhov, Dolina, Perehinsko, Bogorodchany (where
54 ozocerite is also secured), Solotvin, Nadvornaya, Pechenezhin, and Kos-
313 mach. Petroleum is refined at Bolekhov, Stanislav, and Kolomyia. The
main lumber centers are Delyatin and Kutu, which has a large wood-
54 distillation industry. On the right bank of the Dniester River lies the
241 agricultural zone of the oblast, where grains, tobacco, and sugar beets
U are raised. Tobacco is processed at Zabolotov and sugar at Gorodenka.
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438* Stanislav (Polish *Stanisławów*, German *Stanislaw*) has railroad and
U machine shops, an oil refinery, and textile and leather industries and
438 produces asphalt, ceramics, lumber, and food products.

Kolomyia (Polish *Kolomyja*, German *Kolomea*), on the upper Prut River, has machine works and oil-refining and chemical plants. Textiles and cement are also produced.

Drogobych Oblast

Area, 4,000, population, 1,200,000

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135 Drogobych Oblast lies on the northern slopes of the Carpathian Moun-
U tains and is bordered by Poland in the west. It is the chief petroleum
135 region of the Western Ukraine, with the chief oil fields in the area of
Drogobych and Borislav. Near by are potassium and magnesium salt
mines and natural-gas wells. Salt is mined at Dobromil'. Agriculture is
important along the Dniester River.

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438* Drogobych (Polish *Drohobycz*) is the center of the Western Ukrain-
315 ian petroleum region, with important refining and chemical installations
U and potash and magnesium salt mines. It trades in petroleum, livestock,
[438] and agricultural products and produces rubber goods, lumber, and food
315 products.
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Borislav (Polish *Borysław*) is another petroleum center southwest of Drogobych. It has petroleum and natural-gas wells and engages in the